

[0105] In the closed configuration where the casings 102 and 103 are superposed on each other, the rod member 141 does not abut the end face 121b. In other words, as shown in FIG. 22, a depression 143 concave in the direction of the first axis L from the end face 121b is formed in the portion of the end face 121b where the rod member 141 is located in the configuration where the casings 102 and 103 are closed and therefore the rod member 141 is inserted into the depression 143 in the closed condition of the casings 102 and 103. In the configuration where the rod member 141 is inserted into the depression 143, the rod member 141 does not abut the end face 121b and the front ends 102b and 103b of the casings 102 and 103 are pressed against each other by means of the biasing force of the torsion spring 135.

[0106] The following describes a usage of the potable phone 100 as configured above. When carrying the portable phone 100 in a bag or a pocket of clothes, as shown in FIG. 19, the two casings 102 and 103 are closed and superposed on each other. In this condition, as shown in FIG. 20, the front ends 102b and 103b of the casings 102 and 103 are brought close to each other by the biasing force of the biasing means 130 and the projection 115 is inserted into the depression 110. Therefore, the casings 102 and 103 are engaged with each other. Accordingly, even if an external force is applied to relatively rotate the casings 102 and 103 around the first axis L1, the relative positions of the casings 102 and 103 do not easily move, and therefore the casings 102 and 103 can be kept in the accurate relative positions.

[0107] To use the portable phone 100 in this condition, as shown in FIG. 18, the second casing 103 is rotated 180 degrees around the first axis L1 relative to the first casing 102 to open the casings 102 and 103 each other.

[0108] When opening, the front end 115a of the tapered projection 115 moves along the inclined side face 110a of the depression 110. Furthermore, in this configuration, the front ends 102b and 103b of the two casings 102 and 103 move gradually in the direction of being spaced from each other around the second axis L2 by means of the guide means 140, thereby generating a minute gap between the opposed face 102a of the first casing 2 and the projection 115. Therefore, the projection 115 does not contact the opposed face 102a of the first casing 102.

[0109] For example, if a call is started in this configuration, the operation unit 107 is operated before the call is started through the microphone unit 109 and the speaker 113. For example, if an e-mail is received, the operation unit 107 is operated to display the content of the received e-mail on the display unit 111.

[0110] As stated above, according to the portable phone 100, the casings 102 and 103 are provided with the depression 110 and the protrusion 115, respectively, and the coupling means 5 is provided with the biasing means 130, by which the two casings 102 and 103 can be maintained in the closed condition and the casings 102 and 103 can be held in the relative accurate positions. Therefore, it is possible to prevent the casings 102 and 103 from opening unexpectedly when carrying the portable phone 100 with the casings 102 and 103 closed each other.

[0111] In addition, when viewing the display unit exposed to the outside in the configuration where the two casing 102 and 103 are closed each other, the casings 102 and 103 do

not rotate unexpectedly, and thereby secure a good configuration of the portable phone 100.

[0112] Furthermore, when opening the casings 102 and 103 with the relative rotation, the front ends 102b and 103b of the casings 102 and 103 move gradually in the direction of being spaced from each other around the second axis L2, by which it is possible to prevent the opposed face 102a of the first casing 102 and the operation unit 107 provided on the opposed face 102a from being damaged by the projection 115 provided on the second casing 103.

[0113] Still further, when opening the casings 102 and 103 with the relative rotation from the position in which they are closed each other, the tip 15a of the tapered projection 115 moves along the side wall 110a of the depression 110, thereby enabling the projection 115 to get out of the depression 110 smoothly.

[0114] Subsequently, referring to FIG. 23, there is shown a further preferred embodiment of the present invention. While this embodiment has the same basic configuration as for the potable phone 100 shown in FIGS. 18 to 22, it has a different configuration of the engaging means 120 from the portable phone 100. Therefore, the configuration of the engaging means 120 is described here, and the same reference numerals have been retained for the same parts as components in FIGS. 18 to 22 with their description omitted.

[0115] As shown in FIG. 23, the engaging means 120 is configured by using a microphone unit 109 provided on the side of a front end of an opposed face 102a of a first casing 102. More specifically, the microphone unit 109 is provided in a depression 151 depressed inwardly from the opposed face 102a of the first casing 102, a through-hole 153 formed on a bottom wall surface 151b of the depression 151, and an inside of the first casing 102, having a microphone 155 fixed to the position opposed to the through-hole 153. The microphone 155 converts sounds incoming from outside via the through-hole 153 to electrical signals and it is fixed to a circuit board 157 arranged inside the first casing 102. The depression 151 has an inclined face gradually broadening toward the opposed face 102a of the first casing 102 from the bottom wall surface 151b of the depression.

[0116] A projection 159 inserted into the depression 151 of the microphone 109 is attached to an opposed face 103d of a second casing 103 in the condition where the two casings 102 and 103 are closed. The projection 159 is formed of an elastic body such as rubber similarly to the projection 115 of the preferred embodiment of FIG. 2 and its tip 159a is tapered. The depression 151 of the microphone unit 109 and the projection 159 that can be inserted into the depression 151 form engaging means 20.

[0117] As stated above, according to the portable phone 100, it has the same effects as in the preferred embodiments of FIGS. 2 and 12 and may close the through-hole 153 of the microphone unit 109 by using the projection 159. Therefore, it is possible to prevent dust, liquid, or other foreign matter from getting into the second casing 2 while carrying the portable phone 100 with the casings 102 and 103 closed, by which it is possible to prevent the microphone 155 from being damaged.

[0118] While the engaging means 120 is configured using the microphone unit 109 for the depression 151 in the preferred embodiment of FIG. 23, it can also be configured